



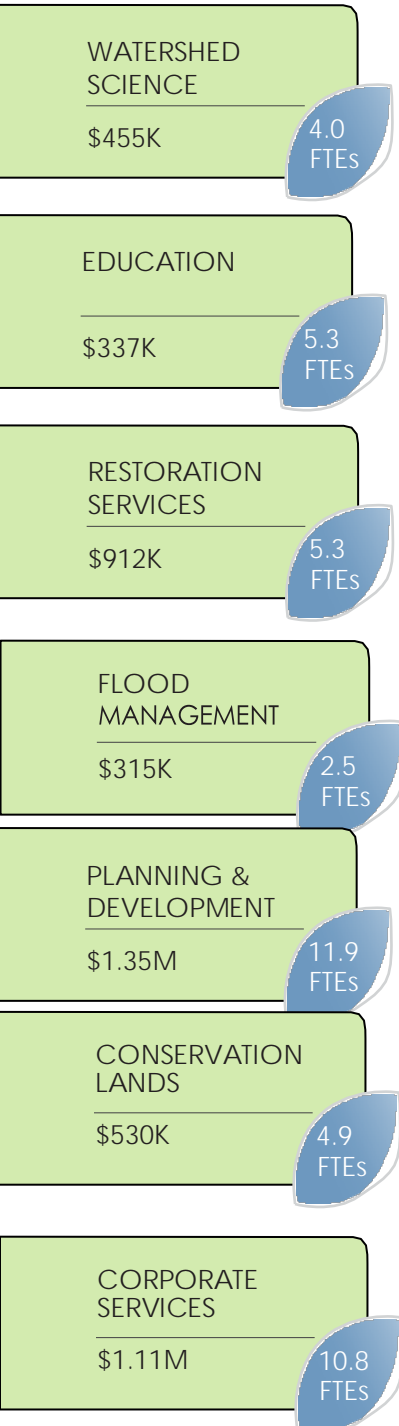
Nottawasaga Valley Conservation Authority

2020 Program Overview

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NVCA PROFILE

2020 represents the NVCA's 60th anniversary of providing services to our watershed. Since 1960, we have continued to work with our municipal partners to provide programs and services that bring to life our vision of a vibrant watershed supporting healthy environments, communities and lifestyles. In 2020, we continue on this course of action as we work to manage and protect our watershed. However, the current pandemic emergency has impacted the organization, programs and services and ultimately may impact our goals.

The NVCA employs approximately 50 full-time, part-time, contract and seasonal staff across numerous professional fields. Our employees uphold our mandate under the 7 Service Areas listed on the left and detailed in the pages that follow.

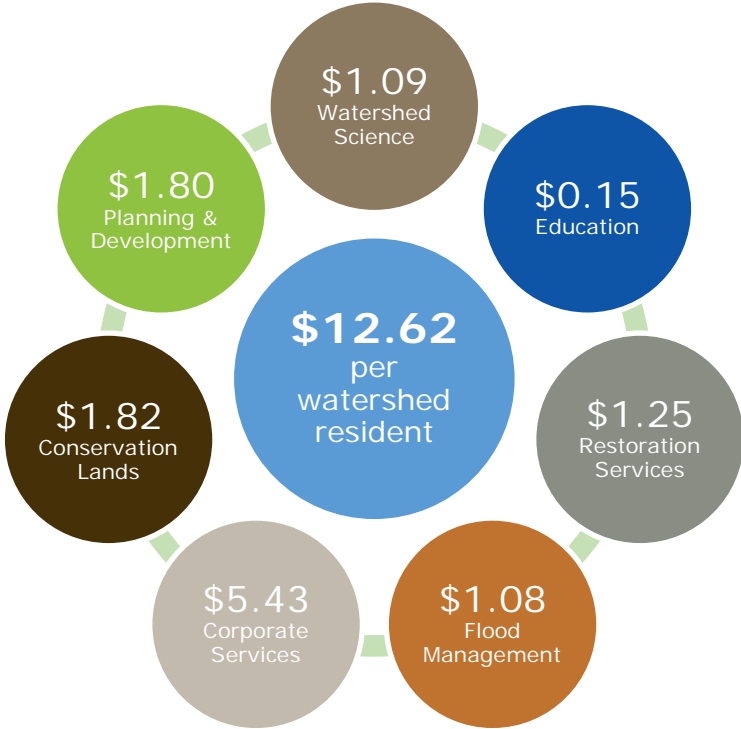
We envision a sustainable watershed that is resilient to the effects of climate change, urban growth and other stressors and provides for safe, healthy and prosperous people and communities.

Our mission is working together to deliver innovative, integrated watershed management that is responsive to the environmental, economic and social sustainability of the Nottawasaga Valley watershed.

FUNDING CONSERVATION

NVCA's 2020 budget is \$5,004,264, which includes a total levy contribution of \$2,529,027. This corresponds to \$12.62 per watershed resident. The budget includes almost \$500K in leveraged funding. When combined with fee for service revenues, 50% of NVCA's budget is funded through non-levy sources of funding. While the average CA levy supporting operations was \$16.42/capita in 2018, for the NVCA it is only \$12.62/capita for 2020.

While this builds a strong case for support; it is not enough to improve the health of our watershed, improve water quality, protect from flooding, provide open spaces and trails that are accessible for people to use, connect and restore forests, wetlands and habitats. These services are required for communities to build resilience to climate change, and most importantly, attracting and retaining the talent and economic opportunities that this watershed desires.



Program Name	Cost/Resident
Drinking Source Water Protection	\$0
Watershed Monitoring	\$1.09
Education	\$0.15
Forestry Services	\$0.42
Watershed Stewardship & Restoration	\$0.83
Flood Management	\$1.08
Corporate Communications	\$0.49
GIS & Information Management	\$1.31
Financial Management	\$1.63
Governance	\$1.58
Human Resources	\$0.42
Conservation Lands	\$1.82
Planning & Development	\$1.80

Sustaining the watershed is not our work alone. It is what we do together with municipalities, our neighbours, universities and colleges, donors, local and regional agencies, and the many other partners we work with. We need to celebrate our successes but we also need to increase the scope, scale and intensity of our joint efforts to create a place we can be proud of and celebrate – one we can call home. For life.



WATERSHED SCIENCE

The goal of Watershed Science is to manage water and ecological monitoring and to ensure that the organization has adequate and accurate scientific information to support both internal and external partners. This program also works to reduce the risks associated with drinking water to ensure that there is safe, clean and adequate supply of water. It also includes Risk Management Official duties as prescribed by agreements with municipalities.

Watershed Science
\$455K
4.0 FTE

Drinking Water Source Protection

The Source Water Protection Program ensures a sustainable and safe source of clean drinking water to residents within the South Georgian Bay-Lake Simcoe Source Protection Region. NVCA does this by meeting our legislative requirements within the *Clean Water Act* and ensuring policies in the Source Protection Plan are implemented. This program also includes Risk Management Official duties as prescribed by agreements with municipalities.

2019 Achievements

- Provided ongoing local support effort for the implementation of the South Georgian Bay Lake Simcoe Source Protection Plan while working with the lead source protection authority, Lake Simcoe Region Conservation Authority.
- As the Risk Management Official for Adjala-Tosorontio, Essa, Clearview, Innisfil, Melancthon, Mono, Mulmur, New Tecumseth and Shelburne, the NVCA completed risk management plans for significant drinking water threats as identified through the source protection process.

2020 Focus

- Initiate review and amendments to the source protection plan, as directed by Ministerial Order.
- Undertake the development of Risk Management Plans for the nine delegated municipalities.
- Review planning applications under Section 59 of the *Clean Water Act* to ensure compliance with the South Georgian Bay Lake Simcoe Source Protection Plan.
- Complete amendments to the source protection plan to include new drinking water systems, as required by Regulation 205 of the *Safe Drinking Water Act*.

Service Pressures

- This source water protection program (not including Risk Management) has always been fully funded by the Province and there is uncertainty about continued funding.



Watershed Monitoring

The Watershed Monitoring program monitors the natural resources in the Nottawasaga Valley Watershed including the status of fish and benthic macroinvertebrate populations found in rivers and streams. These programs aim to identify emerging issues and document environmental trends to support science-based adaptive management.

2019 Achievements

- Monitored the health of the aquatic environment by examining water chemistry, benthic invertebrates, water temperature, baseflow and fisheries in addition to forest and marsh bird monitoring.
- Published Watershed Health Checks including 9 subwatershed health checks and one watershed-wide health check.
- Continued special water quality monitoring projects, Marsh Bird Monitoring Program in the Minesing Wetlands and Forest Breeding Bird Monitoring Program at Tiffin.
- Completed watershed wetland layer update.
- the watershed science data.
- Update the watershed science component of the website.
- Complete the Natural Heritage Strategy and a Watershed Monitoring Strategy.
- Conduct a broad desktop assessment of evaluated wetlands and unevaluated wetlands on a watershed/subwatershed basis.
- Complete a report documenting NVCA wetland mapping history including protocol for future update efforts.

2020 Focus

- Complete an integrated watershed monitoring data management platform.
- Develop a strategy for the online use of

Service Pressures

- There are challenges around predictability and certainty of project-specific funding agreements with municipal, provincial and other partners.



EDUCATION

The Environmental Education program educates the members of the watershed on the interconnectedness of human and natural infrastructure. The education team works to communicate the importance of the collective work as a conservation authority as that related to ecosystem resilience, biodiversity, and water quality. The goal is to raise awareness, share knowledge, create understanding and inspire action that leads to real and lasting change.

EDUCATION

\$337K

5.3
FTEs

2019 Achievements

- Provided high quality outdoor and environmental education to 14,689 youth in all initiatives combined. This included welcoming 474 youth as part of the summer Camp Tiffin day camp program.
- Introduction of new programs including a stewardship summer camp, winter and March break camps, family nature days and a bat night.

- Build upon past public programs to evolve new educational programs to stay progressive with popular culture and needed environmental awareness.

2020 Focus

- Determine how to best continue delivering educational programs during pandemic isolation.
- Once possible, deliver educational programs for school groups on-site and through outreach for students in kindergarten to grade 12.
- Pulling together on short timelines, if possible, an engaging nature-based camp program at the Tiffin Centre, and offering off-site camp programming when invited to run programming at other camps in our watershed.

Service Pressures

- Geographic expanse of watershed service area has resource implications.
- School board funding uncertainties through the pandemic and teacher job action.
- Developing and sharing quality outdoor educational opportunities remotely through various appropriate platforms during the pandemic emergency.
- Maintain qualified part-time/casual staff to improve the transition back to teaching when pandemic emergency is over.
- Sharing the educational building with other departments limits current service capacity.





RESTORATION SERVICES

The goal of NVCA's Restoration Services is to manage natural heritage systems in the watershed by identifying and implementing restoration programs.

Forestry Services

The Forestry Services program contributes to watershed and community health by implementing best forest management practices, including managing forested land and expanding forest cover. Well managed forests protect, enhance and restore land by helping to achieve water quality targets mitigate floods and build resilience to climate change. The NVCA is now the only agency providing this service to watershed residents.

2019 Achievements

- Planted 139,330 trees on 21 properties across the watershed.
- Received financial contributions (outside of levy) from provincial and municipal governments, Forests Ontario, corporations and private landowners totaling \$226,174.
- Managed 961 acres of forest; worked with 49 landowners to develop their Managed Forest Plans.
- Conducted Arbour Day sales in three municipalities, selling 4,750 tree seedlings to urban and rural landowners.

2020 Focus

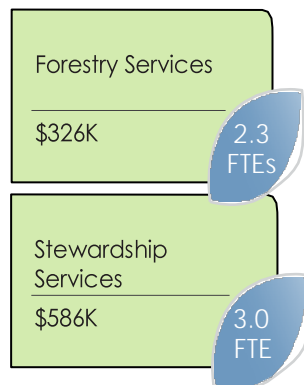
- Plant approximately 115,000 trees on 30 properties throughout the watershed.
- Create more than 61 hectares (150

acres) of new forest cover.

- Assist landowners in managing over 405 hectares (over 1,000 acres) of forest to maintain forest health.
- Hold the 31st Annual Arbour Day Tree Sales, helping landowners to create their own forests.
- Begin securing agreements for the 2021 tree planting.

Service Pressures

- Rapid urbanization and competing land use interests' impact available land for tree planting.
- Uncertainty around funding from partners and provincial government.
- Ash mortality due to the expansion of the Emerald Ash Borer will impact forest cover in the watershed.





Watershed Stewardship and Restoration

NVCA's Watershed Stewardship and Restoration program aims to restore river and wetland habitat and support agricultural and urban water quality improvement projects. This enhances the ecological health of the watershed and provide enhanced economic and recreational opportunities.

2019 Achievements

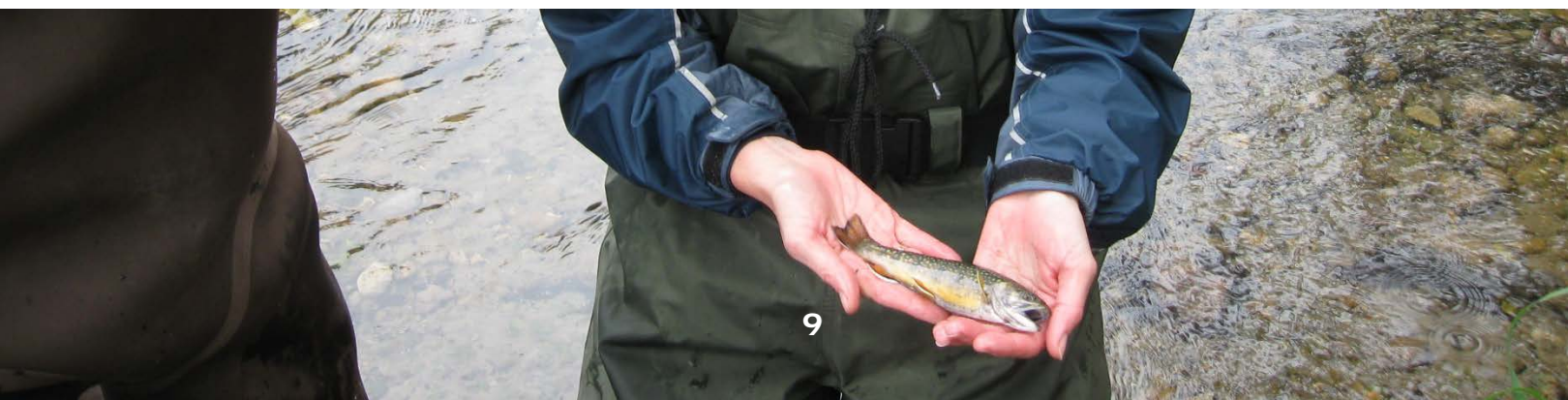
- Completed over 129 stewardship projects and events throughout the watershed.
 - Worked with farmers and rural landowners to reduce 291 kg/year of phosphorus runoff to streams and lakes.
 - Protected rivers and wetlands by installing over 1.8 km of fence that limited livestock access.
 - Planted trees along 5.1 km of streams.
 - Removed more than 2.8 tonnes of invasive common reed (Phragmites) to protect globally rare Great Lakes Coastal wetlands (Silver Creek Coastal Wetlands) and the internationally significant Minesing Wetlands.
 - Engaged more than 2,500 volunteers in hands-on habitat restoration projects across the watershed and leveraged funding and donations to support projects that improve water quality and restore habitat, worth a total of almost \$900,000.
- landowner water quality improvement projects.
 - Remove the Petun Dam on Black Ash Creek.
 - Maintain the Nottawasaga River Restoration Program and develop a similar rehabilitation strategy for the Pine River.
 - Promote natural floodplain restoration as green infrastructure for flood control.
 - Develop expertise in creating grassland bird habitat.
 - Continue controlling Phragmites (common reed) in the Silver Creek Coastal wetland.

Service Pressures

- Loss of provincial funding reduces capacity to match federal grants and to provide financial and technical support to private landowners.
- Corporate sponsors have stepped forward to fill the funding gap but challenges exist with maintaining long-term support from this sector.

2020 Focus

- Expand grant support for private





FLOOD MANAGEMENT

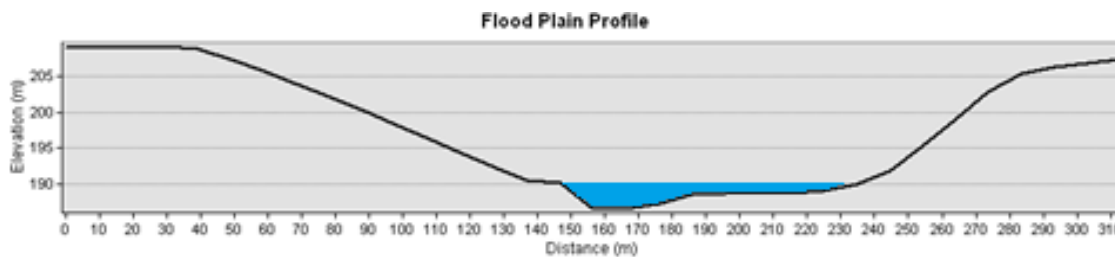
The goals of the Flood Management program are to reduce the risk to people, property and infrastructure, minimize social disruption due to hazards related to flooding and erosion and to encourage the use of natural flood management practices. This is a delegated responsibility from the Province and the NVCA helps maintain the federal-provincial surface water monitoring network.

Flood Management

\$315K

2.5
FTEs

Figure 1: Cross section profile of a stream



2019 Achievements

- Monitored flood and low water conditions; issued 8 flood messages including a Spring Safety Statement. NVCA remained out of low water conditions.
- Inspected and operated flood and erosion control structures, including Utopia, New Lowell and Tottenham dams as well as the Pretty River dyke. The New Lowell Dam Safety Review was completed.
- Monitored ice conditions throughout the watershed.
- Ongoing maintenance and improvements to the NVCA stream and weather gauges to improve data quality and reliability.
- Developed criteria for a Georgian Bay shoreline flood warning statement.

2020 Focus

- Update the watershed hydrology & transfer flow regime to the generic regulation model.
- Prepare and implement Pretty River Dyke Maintenance Plan.
- Conduct Tottenham dam safety study.
- Review and begin implementation of recommendations from New Lowell dam safety study.
- Enhance data management for snow data.

Service Pressures

- Increased pressure on staff and resources to respond to flood events.
- Reduced resources due to provincial funding cuts.
- Understanding the impact of sustained high water levels of Georgian Bay.



PLANNING & DEVELOPMENT

Planning and Development Services, which includes engineering, permitting and enforcement, ensures that development in the watershed progresses in a sustainable manner that will protect natural heritage features, direct development away from natural hazard lands and protect our water resources. NVCA follows a planning first principle which ensures that planning permissions are in place before we consider any further approvals under the *Conservation Authorities Act*.

Planning & Development \$1.35M	11.9 FTEs
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2019 Achievements

- Processed 2,615 applications and inquiries under various provincial acts: *Conservation Authorities Act, Planning Act, Niagara Escarpment Planning and Development Act, Aggregate Resource Act, Green Energy Act, Drainage Act, and Environmental Assessment Act*. This is an increase of 165 applications or 6.7% over 2018.
- Completed the 2019 Integrated Watershed Management Plan (IWMP).
- Improved the engineering technical review procedures of applications.
- Completed the Wasaga Beach Hydrology and Floodplain Mapping project and provided technical support to the Town of New Tecumseth on their Drainage Master Plan, both through Federal funding.
- Developed a guidance document for review of municipal drain repair/maintenance permit applications.

2020 Focus

- Update Planning and Regulation Guidelines.
- Finalize the Ecological Offsetting Policy.
- Update the Nottawasaga River floodlines in the Town of Wasaga Beach.
- Update the development review fees.

- Continue looking for opportunities with municipalities and partners to streamline processes for the review of applications.
- Continue to use and provide updates to municipal service agreements (MOU's) to provide effective and efficient service.
- Continue to improve review procedures to ensure timely approvals for development applications.
- Finalize two additional flood and floodline projects supported through Federal funding.
- Promote storm water management/low impact development guidance on municipal plans.

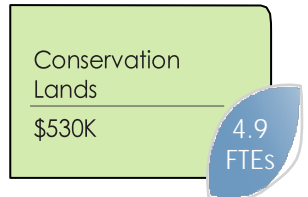
Service Pressures

- Program operates on a cost recovery basis.
- Increasing growth, development and associated changes in land use in the watershed.
- Continued growth and issues with excess fill have resulted in an increase in the number of violations.
- Uncertainty around legislative amendments through provincial review of conservation authority permitting processes and how that will impact service delivery.



CONSERVATION LANDS

Conservation Lands ensures that valuable greenspace is protected and that recreational opportunities are provided in safe, well maintained natural settings, so that watershed residents can enjoy a high quality of life. The NVCA manages 5,260 hectares of conservation land, including the internationally significant Minesing Wetlands.



2019 Achievements

- Hosted 50,000 visitors at 12 conservation areas across the watershed.
- Partnered with groups to maintain and improve recreational opportunities at conservation areas and maximized work efficiency by working with volunteers.
- Hosted groups and events at the Tiffin Centre for Conservation (Tiffin CA). Including 80 external events including weddings, celebrations of life and corporate meetings.
- Offered 100 hunting passes for Minesing and Osprey Wetlands and secured hunters for exclusive hunting properties.
- Completed a hazard tree assessment and tree removal to ensure the safety of visitors of Tiffin CA.
- Completed new buildings and upgrades to facilities at Tiffin and Fort Willow Conservation Areas with volunteer assistance.
- conservation area directional signage.
- Conservation lands recreation infrastructure review.
- Implement and enforce the Smoke-Free Outdoor Spaces Policy at all NVCA owned properties.
- Review of the Minesing Wetlands Conservation Area hunting program while providing controlled hunting opportunities through a permit system on 4,500 ha of conservation authority land.
- Maintain property leases with local partners and municipalities to provide agricultural and recreational opportunities within the watershed.

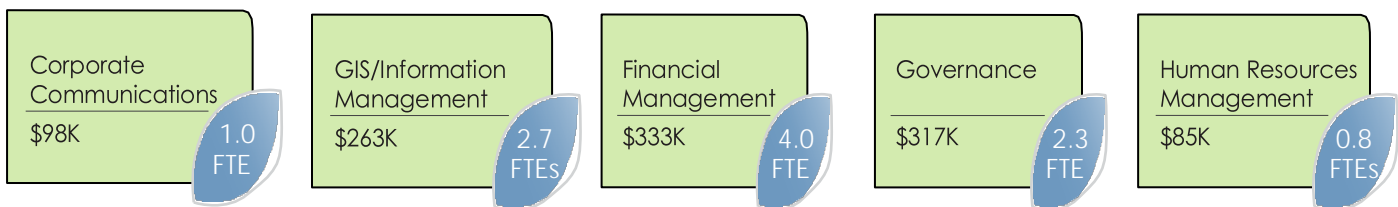
2020 Focus

- Work with partners to increase recreational opportunities at conservation areas across the watershed including the installation of an information kiosk at Minesing Wetlands and improving the visitor experience at the Petun Conservation Area.
- Update the NVCA's Land Acquisition Strategy and Fort Willow Strategic Plan including implementing the Utopia Master Plan.
- Work with municipal partners to improve
- Challenge with balancing recreational needs with natural heritage features within the conservation areas.
- Potential liabilities associated with providing recreational opportunities is increasing.
- Proximity to large urban centers increases guest expectations on facilities and conservation areas. Combined with increased population density within the watershed, the NVCA faces increasing land management challenges and higher maintenance needs.
- Changing climate resulting in noticeable impacts on infrastructure and recreational opportunities.
- Increased land value resulting in fewer opportunities for land acquisition.



CORPORATE SERVICES

Corporate Services plays a critical supportive role to the Board of Directors and across the organization, providing finance, human resources, communications and administrative leadership. This department is an enabling service, supporting the other six service areas in the organization. Corporate Services consists of the following program areas:



Corporate Communications

Corporate Communications provides strategic advice and services designed to inform, inspire, influence and motivate municipal, provincial, federal partners and people of all ages in our watershed communities, to support the work of NVCA.

2019 Achievements

- Shared information about NVCA through our website (66,720 visitors), social media (325,800 impressions), traditional media, e-newsletter (1,526 subscribers) and other channels and venues.

2020 Focus

- Continue to build internal communication programs.
- Increase targeted outreach for NVCA programs and services to build participation and subscription.

- Continue to ensure AODA compliance with provincial standards.

Service Pressures

- Dealing with challenges associated with effectively reaching audiences and changing population across the watershed while keeping in mind the geographic, demographic and socio-economic span and diversity of the watershed.
- Clarify NVCA's role and services in urban and rural areas.



Geographic Information Systems & Information Management

Geographic Information Systems (GIS) and Information Management is responsible for providing data integrity while managing a secure, reliable and integrated information technology environment that aligns our business and strategic goals.

2019 Achievements

- Developed and implemented an online Camp Tiffin registration and payment application.
- Supported National Disaster Mitigation Program funding through GIS mapping and analysis.
- Updated core datasets including land use, land cover, regulation limits and ortho imagery.
- Developed corporate applications for asset management, invoicing, and centralized information system.

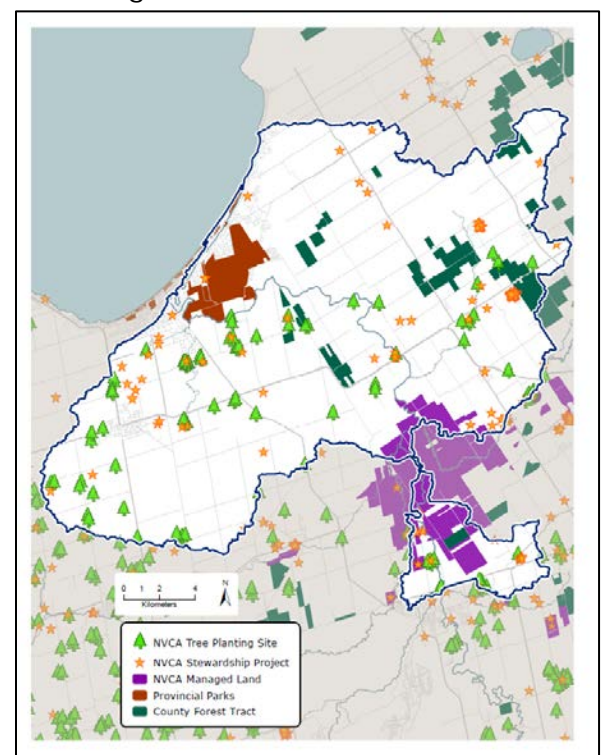
2020 Focus

- Development of a Watershed Science data management platform providing viewing, upload and querying capabilities linked to the GIS system.
- Flood hazard mapping of Nottawasaga River for risk assessment.
- IT infrastructure replacement as per the NVCA's Asset Management Strategy.
- Creation of public facing online tools for efficiencies of the application and registration processes.

Service Pressures

- Systems security is a constant threat that must be balanced with the costs to keep NVCA's network running smoothly and safely.

- Maintaining larger and more complex data holdings as the need for program support and analysis continues to increase. There has been a significant increase in provincial, municipal and public expectations for information, data analysis tools and predictive modeling.





Financial Management

Financial management is responsible for all of the day-to-day financial operations, such as payroll and accounts payable/receivable. Other areas include budgeting, procurement, risk management, legal, quarterly and annual financial reporting, records management, reception, and freedom of information requests/reporting.

2019 Achievements

- Implemented Asset Management database for efficiency in managing NVCA's assets.
- Processed four Freedom of Information requests.
- Continued the paperless initiative to reduce the environmental impact.

2020 Focus

- Establish a new Purchase Order System.
- Implement an Electronic Fund Transfer (EFT) system, resulting in less cheques being printed and increase efficiencies for monies transfer.
- Investigate software to improve budgeting processes.

Service Pressures

- Budget pressures to minimize the levy requirements from member municipalities while still achieving integrated watershed management plan activities.
- Financial management requires continued compliance with changing external legislation for reporting, payroll and tax.





Governance

The Chief Administrative Officer (CAO) provides expert knowledge, strategic advice and recommendations to the Board of Directors with regard to policy, program and budget decisions. The CAO also provides operational leadership to staff, guiding and influencing processes, decisions and implementation, with the goal of advancing the NVCA's mission. Governance supports Board Member decision making and leadership by promoting and facilitating the participation of municipal members on the Board of Directors. Authority staff provide timely professional support, information and recommendations, through meetings with members of the Board, who guide the NVCA into the future.

2019 Achievements

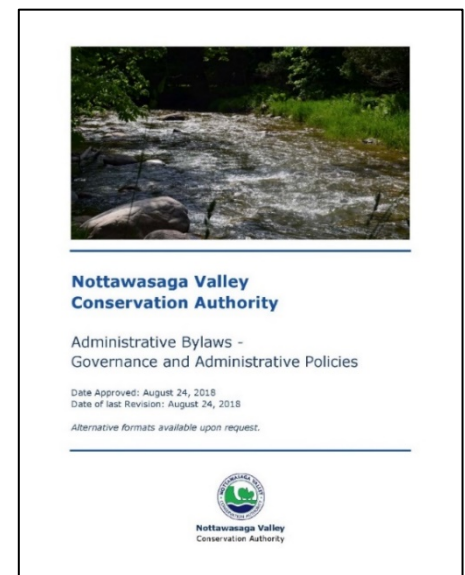
- Efficiently and effectively managed water resources in the NVCA watershed for current and future generations through essential and integrated programs.
- Ensuring the NVCA Board of Directors is acting in the long-term best interests of the NVCA by providing an overarching perspective in managing strategic, structural, cultural, economic and technological changes while ensuring that new initiatives are well aligned with the NVCA's portfolio and abilities.
- Built new partnerships and new business models while continuing to develop relationships with existing partners such as businesses, watershed stakeholders, municipalities and provincial and federal governments, to ensure the implementation of programs and services.

2020 Focus

- Strive for paperless communication with the Board, partners and internal messaging.
- Move to a Board management software to increase efficiencies both in preparing for and during Board meetings.
- Cultivate partnerships with the private sector, watershed municipalities, ENGOs and provincial and federal governments to ensure the NVCA continues to implement programs and services.
- Continue to lead and advocate for innovative approaches and projects to support the Integrated Watershed Management Plan.

Service Pressures

- Possible regulatory and mandated changes to conservation authority programs and services.





Human Resources Management

Responsible for the effective management of people in the organization through the provision of services such as staff recruitment, health and safety, diversity, inclusion and accessibility, employee learning and development, benefit and insurance administration and performance management.

2019 Achievements

- Ensured human resources management best practices were followed through connections with other CA's and municipalities.
- Updated employment policies as required.

2020 Focus

- Respond to unknown/emerging recruitment needs.
- Review and update employment policies.

Service Pressures

- Finding talent to replace "hard to fill" positions as required.
- Responding to matters resulting from the Provincial government's review of municipalities and conservation authorities.





Nottawasaga Valley
Conservation Authority

Member of






The Nottawasaga Valley Conservation Authority (NVCA) is your public agency dedicated to the preservation of a healthy environment. As your partner, the NVCA provides the expertise to help protect our water, our land, our future.

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